

ABSTRACT

A collision-free protocol for transmitting frames between stations connected over a shared transmission medium such as an IEEE 802.3 Ethernet LAN. A logical ring is formed and a token is circulated among the connected stations part of the logical ring (not all connected stations are required to be part of the logical ring). Transmitting from any one station, part of the logical ring, is permitted only while holding the token, therefore preventing collisions. A collision-free protocol, over a standard Ethernet infrastructure, becomes feasible, yet remains compatible with the standard collision protocol, thus improving performances.